

de Gucena 2018-01875

Feature Activity 03 Documentation

Getting setup

```
C:\Users\Eliezer Jasper\Documents\GitHub\ME8_Containerization_and_Docker\3-building_images>docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
ubuntu        16.04     aefd7f02ae24   3 weeks ago    134MB

C:\Users\Eliezer Jasper\Documents\GitHub\ME8_Containerization_and_Docker\3-building_images>docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES

C:\Users\Eliezer Jasper\Documents\GitHub\ME8_Containerization_and_Docker\3-building_images>docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
```

Creating a Dockerfile

```
Dockerfile M X
C: > Users > Eliezer Jasper > Documents > GitHub > ME8_Containerization_and_Docker > 3-building_images > Dockerfile
1 FROM ubuntu:16.04
2 LABEL author="Eliezer Jasper"
3
4 RUN apt-get update
5
6 RUN apt-get install -y iputils-ping
```

Building the Dockerfile

```
C:\Users\Eliezer Jasper\Documents\GitHub\ME8_Containerization_and_Docker\3-building_images>docker build -t "eliezerjasper/ping" .
[+] Building 0.2s (7/7) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 146B
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load metadata for docker.io/library/ubuntu:16.04
=> [1/3] FROM docker.io/library/ubuntu:16.04
=> CACHED [2/3] RUN apt-get update
=> CACHED [3/3] RUN apt-get install -y iputils-ping
=> exporting to image
=> => exporting layers
=> => writing image sha256:fde2daef3c8de9f8dfef026601f496169c4f6366a5a488c463966ffba77efe63
=> => naming to docker.io/eliezerjasper/ping

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

C:\Users\Eliezer Jasper\Documents\GitHub\ME8_Containerization_and_Docker\3-building_images>docker build -t "eliezerjasper/ping" .
[+] Building 0.1s (7/7) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 31B
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load metadata for docker.io/library/ubuntu:16.04
=> [1/3] FROM docker.io/library/ubuntu:16.04
=> CACHED [2/3] RUN apt-get update
=> CACHED [3/3] RUN apt-get install -y iputils-ping
=> exporting to image
=> => exporting layers
=> => writing image sha256:fde2daef3c8de9f8dfef026601f496169c4f6366a5a488c463966ffba77efe63
=> => naming to docker.io/eliezerjasper/ping

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

C:\Users\Eliezer Jasper\Documents\GitHub\ME8_Containerization_and_Docker\3-building_images>docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
eliezerjasper/ping  latest    fde2daef3c8d   13 minutes ago  169MB
ubuntu        16.04     aefd7f02ae24   3 weeks ago    134MB
```

Optimizing the Dockerfile

```
Dockerfile M X
C: > Users > Eliezer Jasper > Documents > GitHub > ME8_Containerization_and_Docker > 3-building_images > Dockerfile
1 FROM ubuntu:16.04
2 LABEL author="Eliezer Jasper"
3
4 RUN apt-get update
5
6 RUN apt-get install -y iputils-ping
7
8 RUN apt-get clean \
9     && cd /var/lib/apt/lists && rm -fr *Release* *Sources* *Packages* \
10    && truncate -s 0 /var/log/*log
```

```
C:\Users\Eliezer Jasper\Documents\GitHub\ME8_Containerization_and_Docker\3-building_images>docker images
REPOSITORY          TAG         IMAGE ID      CREATED        SIZE
eliezerjasper/ping   latest      ef5b30eeb96b  15 minutes ago 169MB
ubuntu              16.04      aefd7f02ae24  3 weeks ago   134MB
```

```
Dockerfile M X
C: > Users > Eliezer Jasper > Documents > GitHub > ME8_Containerization_and_Docker > 3-building_images > Dockerfile
1 FROM ubuntu:16.04
2 LABEL author="Eliezer Jasper"
3
4 RUN apt-get update \
5     && apt-get install -y iputils-ping \
6     && apt-get clean \
7     && cd /var/lib/apt/lists && rm -fr *Release* *Sources* *Packages* \
8     && truncate -s 0 /var/log/*log
```

```
C:\Users\Eliezer Jasper\Documents\GitHub\ME8_Containerization_and_Docker\3-building_images>docker images
REPOSITORY          TAG         IMAGE ID      CREATED        SIZE
eliezerjasper/ping   latest      44c7940da6b6  13 minutes ago 138MB
ubuntu              16.04      aefd7f02ae24  3 weeks ago   134MB
```

Other Dockerfile directives

```
Dockerfile M X
C: > Users > Eliezer Jasper > Documents > GitHub > ME8_Containerization_and_Docker > 3-building_images > Dockerfile
1 FROM ubuntu:16.04
2 LABEL author="Eliezer Jasper"
3
4 ENV PING_TARGET "google.com"
5
6 RUN apt-get update \
7     && apt-get install -y iputils-ping \
8     && apt-get clean \
9     && cd /var/lib/apt/lists && rm -fr *Release* *Sources* *Packages* \
10    && truncate -s 0 /var/log/*log
11
12 CMD ["sh", "-c", "ping $PING_TARGET"]

C:\Users\Eliezer Jasper\Documents\GitHub\ME8_Containerization_and_Docker\3-building_images>docker run -it eliezerjasper/ping
PING google.com (142.250.204.110) 56(84) bytes of data.
64 bytes from 142.250.204.110: icmp_seq=1 ttl=37 time=32.0 ms
64 bytes from 142.250.204.110: icmp_seq=2 ttl=37 time=33.5 ms
64 bytes from 142.250.204.110: icmp_seq=3 ttl=37 time=31.7 ms
64 bytes from 142.250.204.110: icmp_seq=4 ttl=37 time=32.2 ms
64 bytes from 142.250.204.110: icmp_seq=5 ttl=37 time=32.0 ms
^C
--- google.com ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4008ms
rtt min/avg/max/mdev = 31.769/32.330/33.544/0.634 ms
```